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ABSTRACT

This paper examines some of the key issues arising from the delivery of a management development course by distance education using traditional, multimedia, and computer-based approaches. The research explores some of the critical decisions that need to be taken by educators involved in developing distance education, computer-based training, multimedia, and hypermedia. The discussion focuses on the particular challenge of course development using these media where the course is fully or part distance or open learning in its form or method of delivery. Three key issues are examined: (1) What are the educational design issues that need to be addressed when developing distance education packages for the junior and middle manager? (2) How can we improve the way in which we use computers, electronic mail, and networks for communication and student support? and (3) What are the issues associated with the integration of multimedia and hypermedia systems into distance education for the middle manager? The paper concludes by critically examining specific futures that are advanced by different groups of educational and training professionals. (Author)

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Distance Management Education: Process and Evaluation of Course Design, Manager Support and Media.

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This paper examines some of the key issues arising from the delivery of a management development course by distance education using traditional, multimedia and computer-based approaches. The research explores some of the critical decision that need to be taken by educationalists involved in developing distance education, computer-based training, multimedia and hypermedia. The discussion focuses on the particular challenge of course development using these media where the course is fully or part distance or open learning in its form or method of delivery. The paper examines three key issue: What are the educational design issues that need to be addressed when developing distance education packages for the junior and middle manager ? How can we improve the way in which we use computers, electronic mail and networks for communication and student support ? What are the issues associated with the integration of multimedia and hypermedia systems into distance education for the middle manager ?. The paper concludes by critically examining specific futures that are advanced by different groups in education and training professionals.

Introduction

The development and effective delivery of Distance Management Education constitutes a significant challenge to traditional approaches to course development and course design. The parameters of the problems are defined by the complex and diverse character of the material being delivered, the contrasting and varying motivations and experience of the participating managers and the general difficulties involved in ensuring appropriate support to students who are physically dispersed from their peers, the course administration and teaching faculty.

A simple pedagogical strategy for meeting the needs of all the participants in this relationship can be elusive. The central task is to identify the teaching and learning design that can satisfy the needs of the managers who are recruited to our courses while ensuring the relevance of the methods of delivery and academic credibility. The rapidly evolving technologies of Multimedia and Hypermedia would seem to have a natural home within the established knowledge base that has developed in Distance Education. While the cliché of "the Media being the message" may seem familiar it is important that we analyse and evaluate the relevance of different media to the needs of our students. The process needs to consider the wider issues associated with the suitability of the media to the material being covered, the experience and motivations of the students, the approach and attitudes of the relevant Faculty and the learning support.

Development and Design of Open/Distance learning delivery systems

Open learning management development courses have an implicit assumption of being outcome oriented. The nature and purpose of the course is to change the managers ability and behaviour. In this sense the form and function of the course is strongly linked to the philosophy of competence and management development. The design of management development courses has changed dramatically as a result of a revolution in our expectation of what we hope to achieve in changing the attitudes, behaviour and performance of managers. The issue of how we define our educational objectives in has been the subject of much debate and criticism

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(Macdonald 1983; Rowntree, 1987, 1992; Marshall, 1991). The central issue for open learning management courses is that our objectives should reflect the development perspective of the individual within a framework of independence and autonomy. Boot and Hodgson (1987) provide a clear and relevant distinction between two models of learning. They identify the traditional model as being characterised by learning being a process of dissemination. The contemporary alternative to this view is of a model of learning exemplified by development. A number of authors have supported this distinction and supported the development model . Rowntree,(1992) attempts to distinguish between to two distinct approaches. The contrast between the two approaches is presented in the table below(Table 1).

Table 1

Attributes and Approaches of the Dissemination and Development models of Management Education

Dissemination	**Development**
Focus on the acquisition of facts and procedures	Focus on growth and empowerment of individuals
Product and commodity oriented	Psychological/emotional process oriented
Utility and consumption focus	Needs and interests focus
Primarily teacher passes knowledge to learner	Two way process between teacher and learner
Munication dominant	Co-mmunication dominant
Abstract and theory	Concrete and experiential
Technical, knowledge and task	Soft skills, and openness

The implication of adopting a developmental model for the design of open learning management development course is that existing course components need to be revised and restructured. Furthermore new approaches to management education and learning need to be adopted in order to address this new set of development objectives. This new approach also involves reconsidering our existing model of the learning process (Burgoyne & Stewart, 1991). The adoption of a developmental approach in open learning managment development is actively linked with a number of major themes and theories now gaining acceptance in management education. Mumford identifies these themes as "action learning"; "the learning organisation" and "the competency approach".(Mumford, 1993).

The new approach to open learning management development involves the major exercise of restructuring all the components of existing courses. This process and the contrast between the old and new approach to managment development can be demonstrated by a comparison between the old and new versions of one of the open learning management development programmes offered at Kingston University. Kingston Business School has delivered an Open Learning Diploma in Management Studies for nearly 10 years. The Diploma course is designed for junior and middle managers and is studied over a period of two years. The initial course recruited 100-150 managers each year. The philosophy annd structure of this programme was redesigned and rewritten three years ago to reflect the adoption of a competence approach to management education and a developmental philosophy. During this process the author was involved in developing, evaluating and delivering more than 20 different management courses requiring in excess of 1000 hours of study. This portfolio embraces a comprehensive set of subject materials with a major emphasis on computer based and work related competence based assessment.

The new competence based open learning management development programme has clear benefits for the participating managers and the sponsoring organisation. The competence approach integrates the development process into the wider work environment of the individual. Work related assignments emphasise the personal needs of the individual and the improvement of performance. The flexibility of the competence approach using open learning study materials means that managers can concentrate on the development of a competence set that is relevant to the individual. The study materials, residential sessions, network groups are actively developed by the teachers and the learners in a partnership. The differences between the old and new approaches is presented in Table 2.

Table 2

Comparison of old and new designs for Open Learning Management Development Courses

	Old Course Structure & Approach	New Course Structure & Approach
Philosophy	Manager expected to learn the Theory, knowledge and techniques of management as an academic subject.	Manager develops and demonstrates competence in the application of skills and tools of management.
Objectives	Dissemination	Development
Participant Managers	Emphasis upon academic experience and qualifications for entry	Emphasis on empowerment and growth within the context of current and future responsibility. Importance of "openness" in terms of accessibility and flexibility.
Study Materials	Structure associated with text book but with exercises and model answers. May involve "commentary" upon recognised text book. The materials tend to be subject focussed with little overlap between subject areas. Developed and written on a three/five years development cycle and printed using traditional techniques.	High level of involvement and interaction. Work related activities and exercises. Skills and techniques form a matrix across different subject areas. The visual design and layout is an important issue to improve understand and motivation. The materials are updated and amended in a continuous process and in response to learner needs. Use just-in-time production .
Assessment Methods	Examination and essay type assignments.	Work related assignments or case study. Wide variety of formats from executive reports to individual presentations. Philosophy of assessment being potentially applicable to the work environment. The central purpose of the assessment is to provide feedback and advice as well as performance evaluation.
Residential Workshops	One week at the end of the course. Main themes revision and problem solving. Teacher lead revision sessions.	Weekend sessions phased throughout the programme. Designed to maintain regular contact and support. Wide range of activities workshops, group work, case study presentation. Flexible design to respond to learning needs of different groups.
Learning Support	Telephone help lines to administration and to the specific subject tutors.	Network study groups of managers providing mutual support. Peripatetic tutors visiting network groups. Email contact to course team and plans for video-conferencing.
Outcomes	Management qualification.	Qualification but emphasis on continuing development and learning.

The course extends the general philosophy of Open Learning into the design and development process, the key attributes of accessibility, flexibility and learner control remain the foundations of the course (Paul, 1990). A second measure of success is the very high completion rate within the set duration of the course. The course has the flexibility to enable managers to complete the programme over a period of five or more years. Even with this flexible provision typically 90% of the managers complete the course in the initial period of registration, the remainder will continue on the programme over a longer period of time. One of the major reasons for the success of this programme is the contribution of the support systems that have been developed for the course. These have had a profound effect on the experience and effectiveness of the programme.

Technologies and Systems for Supporting Managers

There has been a vigorous and active debate in management development circles focused on the selection and adoption of technology that can contribute to the effective and efficient management development course. The

mail, telephone, fax, and in recent years, email networks and video conferencing have all been utilised in the design of management development courses to provide an effective communications and support system for the manager and the course faculty. The philosophy and function of the support system is central to its form and effectiveness. In earlier designs the support system typically depended upon providing a substitute for the face to face tutorial . The hegemony of the traditional tutor system exemplified by the University tutorial modelled around the Oxford and Cambridge University was a fail-safe and crisis management approach to student learning and support. The telephone help line occupies a central position in most open learning management development course. The help line should be a mechanism for recognising and responding to the individual learning needs of the managers on the course. The problem with this model is that in practice the help line acts as a compensation for inadequately designed study materials and/or a failure in the provision of adequate formal support structures within the overall course design.

Research involving a qualitative evaluation of the experience of managers following a course with support from telephone help lines identified a range of key problems with this approach. The problems fall into three categories educational, contextual and logistical. Educationally the help line provides a highly constrained medium for the support of managers. Tutoring and supporting learners in complex, technical and in some cases abstract concepts is not easily performed on the telephone. While individual ability and experience will engender different support needs the study materials should be structured and designed to support the full range of experience and ability. In many cases the help line was used as an ad hoc mechanism for students to compensate for weaknesses in the materials or administration.

The second problem associated with help lines was the context of the support. The help line was seen by the anxious or less able student as the means for providing a compromise solution to replace the intensity of support offered by the face to face contact of traditional learning systems. When real or imagined spectres presented themselves to the learners the response was not to evaluate the issues or ideas and reformulate the problem but to pick up the phone and seek outside support and explanation, a ghost buster mentality. This approach links into the learning styles models discussed earlier (Boot & Hodgson, 1987), where open learning was seen in terms of dissemination with a consequent emphasis upon the learning being oriented towards facts, consumption of information and a clear distinction between teacher and learner.

Finally the logistics of ensuring help line contact between the manager and the course team was regarded as the main problem with help lines. The telephone is an immediate but an ephemeral medium. However, the support required may not be available or exist. The failure to achieve adequate response can lead to frustration and due to unfulfilled expectation a negative attitude to the management course. It can be argued that the answer phone goes some way towards reducing this problem but does not remove the problem of students being able to access the right person at the time of contact. This scope for failing to meet the expectations of the manager is apparent and a major cause of concern.

This experience and research into help lines lead to an explicit rejection of this approach in the current design of the management development programme. However, individuals and corporate clients tend to expect the provision of help lines as being a traditional component of this type of open learning course. The development and implementation of appropriate support systems has been a key feature of recent approaches to open learning management development. The central issue related to support is to reduce the managers need for support and increase the quality of response when support is required.

The foundations of this approach is to empower the managers on their course to accept responsibility for their own and their colleagues development. A learning contract is forged between groups of managers into network study groups. These network groups are given explicit responsibility for managing the learning process. The networks are required to meet regularly and to set and establish an appropriate mutual support system. This network is also used in the academic agenda of the course to provide the learning and assessment vehicle for several areas of the competence programme e.g. team membership, leadership, conflict management. The networks have reoriented the participating managers view of the management course. The need to seek support from each other has changed the experience of the course. The managers are now establishing and setting their own development needs and demonstrating and using their competence to support others. This approach allows the management course to fulfil a central philosophy of open learning that it should be an approach that enables independence and autonomy.

A second aspect of this approach is that groups are encourage to provide a critical input into the study materials in a formal and structured process of communication between the teachers and the learners. A prerequisite for this approach is the technical ability provide a rapid revision to the materials. This means having access to a resource of academics, designers and editors who can implement revisions. Furthermore a just-in-time approach to production is needed where materials are revised in real time. Recent developments in printing technology where traditional large volume/scale print runs are replaced with electronic publishing systems producing small print runs at an economic level is central to this approach. Thus, study materials evolve in an upwards cycle of quality improvement. The traditional cycle of three to five year development cycles and revision of materials is not relevant in this approach. The materials are relevant to the evolving needs and requirements of the managers. The problem of ageing and relevance has been a particular issue for a number of open learning courses in academic areas that are changing rapidly e.g. information technology management. This approach means that the need for support is significantly reduced.

A central requirement and goal for effective manager support is that when it is required it is structured and of a high quality. Individual differences between managers and groups may result in the need for additional support beyond that provided within the regular quarterly residential study weekends. The solution to this problem is to provide peripatetic tutor support that can be requested to attend meeting of the network group. This approach can be resource intensive and to be effective requires a large scale academic resource to draw upon. It is important to distinguish between this learner demand orientated support system and the more traditional approach in open learning of regular tutor meetings that are programmed throughout the duration of the course. The peripatetic network tutor approach provides the psychological support needed by the managers in the early stages of the course while it does not undermine the independence and autonomy of the learners. The managers are still clearly responsible for the learning and development process. The managers must evaluate their needs and formalise the request for academic support.

The experience of using this approach for the last three years has demonstrated that the support function would appear to be more a psychological need than actual. During this period approximately 50 network groups have been formed on the management course (the approximation is related to the dynamic nature of the groups dividing and coalescing). Only two network groups have organised more than five tutor visits in one year. The remaining groups are evenly divided between groups that requested one or two meeting, and interestingly, groups who had no tutor contact. The extremely low level of utilisation of the tutor support came as a significant surprise to the author. One explanation is that awareness of the availability provided initial reassurance after which learning support was provided by the networks and the quarterly residential workshops. A further point was that the formality of organising a meeting forced the managers to consider the scale, scope and content of the support required, this process served to act as an opportunity to reflect on the perceived learning problem and in many cases resulted in the groups reconciling their difficulties. A final issue was the possibility that much of the activity generated by students using help lines is more to do with a psychological sense of isolation than problems that require academic or administrative support. The network groups deliver the psychological support thus removing the need for faculty involvement in managers support.

The current planning process for the provision of quality manager support systems is directed towards the implementation of two communication technologies to improve the administrative and academic support provided to managers. The evaluation and provision of electronic mail and teleconferencing into the learning support systems of the management programme is being planned and implemented. Electronic mail (Email) has been available to the corporate and academic communities for many years. Indeed, open learning courses have established an extended track record of learner support using email. The main factor inhibiting the wider adoption of this technology by management development courses has been the complexity of the communications protocols, the need to have some familiarity with operating systems running on different platforms and the relative crudity of the communications networks. In recent years the technology has become simpler, more manager friendly and faster. The strength of email is its administrative formality and structured format. Email has a number of advantages over the telephone as a technology for supporting open learning managers. Communications are date stamped, documented and be easily filed/stored. The main strength of email is that it waits for a response or action, advises the sender of when the message has been read and allows easy and rapid reply.

The implications of the wider availability of teleconferencing or video-conferencing for open learning management is profound. The strength of the visual image as device for supporting learning , explanation and motivation is apparent if on examines some of the leading exponents of open learning education. The development of television and video based courseware has been innovative and a major source of innovation. Teleconferencing offers the promise of providing the benefits of flexible and interactive tutorial support at a distance and at a lower cost. The traditional use of closed or open circuit television to provide lecture sessions to widely dispersed groups of people has severe limitations as a medium for open learning. Video conferencing opens up access to high quality tutorial support, while still retaining the autonomy of the learners who can decide whether to participate or not. The current proposal is to proceed with the implementation and evaluation of a pilot project involving video-conferencing tutorial support of management development courses in the near future in association with British Telcommunications Plc. The contribution of the technological sophistication of ISDN (Integrated Digital Services Network) on video-conferencing and the accessibility of information for open learning is arguable the most important issue facing distance education initiatives as we approach the millennium.

Educational Media and Management development

The final theme of this paper is to evaluate the relevance and contribution of media selection upon the effectiveness of the open learning study materials. The choice of media is becoming one of the key decisions facing academics who are developing courseware. One guiding principle is that the process of selection is that the media selection should ensure that different stages of the learning process are enhanced and complemented by the use of the appropriate media. In recent years there has been a a significant increase in the available technologies that can be used in open learning courseware. The foundations of open learning courseware is in the printed media. The development and design of open learning study packages has become an established discipline with its own accepted philosophy and methodologies. The printed media has been complemented by a long tradition of using film and video materials to support the printed material. In recent years alternative technologies have offered a new functionality to the learning and development media. These new technologies have there origins in computing and multimedia systems and include hypertext, computer based training (CBT), interactive video, etc.

The challenge for these technologies is to demonstrate superior performance to the traditional printed media. In the context of developing appropriate systems for producing effective management development course a number systems have been piloted on the programmes at Kingston Business School. The attitudes and experience of managers who have used different media on management development programmes provides a valuable insight into the perceived utility and functionality of these technologies. One of the challenges facing those who are charged with developing open learning courses is identifying systems that are superior to the traditional forms of media. The printed media have specific strengths and a flexibility as a media for open learning study packages. Printed open learning materials are flexible in terms of the ability of the manager to study, select and interact with the courseware. Printed material is a low cost delivery system that does not require expensive hardware or software. Manager can use the material and study where and when they have time. Finally, printed material can be physically annotated and amended by the manager.

From a pedagogical perspective the key attribute of the printed study materials is that they represent a logical and linear structured process for aquiring the knowledge skills associated with a managment competence. The progression in management development is more difficult to manage than in other equivalent areas of open learning. The participants have a highly developed cognitive map of the structure and relationship between entities in the subject area. Each individual needs to select and sort from the available material there own specific pathway through this landscape. This makes the process of producing simple, logical and consistent designs for the material difficult if not impossible. Some would argue that this aspect of the problem lends itself to being specifically appropriate for the use of hypertext media that gives individuals the ability navigate around the material. This seems superficially attractive but it has a number of challenges.

Initial exposure to the concepts can be most beneficial if structured and ordered. The partnership between teacher and learner provides this inherent benefit. The current importance of the coaching analogy in management development also reflects this approach. The availability of a guide speeds the process of explorations into the terra incogniti of management education. It is in the later stages of consolidation, reflection and application that

our pathway through the knowledge base becomes more eclectic and individual. It is during this phase of development that the flexibility offered by hypertext can offer a unique medium of support in the management development process.

The problem arises when one tries to establish some priority or selectivity in these linkages. The traditional printed media has incredible flexibility and utility and it can support a wide variety of styles, images and materials. While it has obvious limits to the range of media it can support it can be scanned and searched very flexibly, thus from the point of view of the learner it is accessible. The strength of hypertext and similar media for management education is the scale and scope of the information they offer and the ability for learners to manage the process of exploration. This is particularly valuable when consolidating the learning or developing new chains of association.

The important issue for the effective development of hypertext materials is that links and chains should be established by the learners, not by a reproduction of the teachers or coaches mental map. The existing media of print, video and film are perfectly capable of providing a consistent and effective representation of the initial or preferred path to explanation and understanding. Hypertext systems can complement this by providing the optimal vehicle for consolidating, developing and exploring the knowledge base. Given this role it is critical that the chains and linkages between element of the knowledge base should be defined by the learners not the teachers. This means recording how learners navigate around the system and recording and documenting positive search or exploration patterns. The building process is equivalent to the learning behaviour of neural networks where via an iterative process configuration to the nodes and links in the network are developed from the training of the neural network.

Conclusions

The design of effective Open learning management development programmes is very difficult. Providing courses that can meet the needs of participants, corporate clients and academic institutions is in many senses a hard problem to reconcile. In relation to this debate three issues need to be addressed:

- The philosophical foundations of Open Learning need to be integrated into the structure and content of the course design and culture.
- Open learning management development courses need to have effective learning support networks that are student centred in their focus. The support should be directed towards the goals of openness, flexibility and learner control. The model of support proposed in this paper attempts to meet this specification.
- There is an important role for multi-media and hypertext sytems in open learning management development programmes. It is important that we analyse the pedagogical role and function of these media and establish at what stage in the learning and development process they can provide the maximum contribution to the needs of the manager.

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